AMENDMENTS

Please amend the claims as follows:

1. (Amended) An improved method for chemotherapy in a human patient, wherein the improvement comprises administering to the human chemotherapy patient an amount effective for treating or **reducing the frequency and/or severity of** [~~preventing~~] chemotherapy side effects of at least one active agent comprising a sequence consisting of at least [three] **five** contiguous amino acids of groups R^1-R^8 in the sequence of general formula I

$$R^1\text{-}R^2\text{-}R^3\text{-}R^4\text{-}R^5\text{-}R^6\text{-}R^7\text{-}R^8$$

wherein R^1 is Asp,

R^2 is Arg;

R^3 is Val;

R^4 is Tyr;

R^5 is Ile;

R^6 is His;

R^7 is Pro; and

R^8 is Phe or is absent,

excluding sequences including R^4 as an N-terminal Tyr group;

and wherein the active agent is not SEQ ID NO:1,

wherein the chemotherapy side effects are selected from the group consisting of hematopoietic toxicity, decreased mobilization of hematopoietic progenitor cells from bone marrow into the peripheral blood; anemia, myelosuppression, pancytopenia, thrombocytopenia, neutropenia, lymphopenia, leukopenia, stomatitis, alopecia, headache, and muscle pain .

2-6. (Previously canceled)

7. (Canceled) [~~The method of claim 1 wherein the sequence consists of a sequence of at least four contiguous amino acids of groups R^1-R^8 in the sequence of general formula I.~~]

8. (Canceled) [~~The method of claim 1 wherein the sequence consists of a sequence of at least five contiguous amino acids of groups R^1-R^8 in the sequence of general formula I.~~]

9. (Previously amended) The method of claim 1 wherein the sequence consists of a sequence of at least six contiguous amino acids of groups R^1-R^8 in the sequence of general formula I.

10. (Previously amended) The method of claim 1 wherein the sequence consists of a sequence of at least seven contiguous amino acids of groups R^1-R^8 in the sequence of general formula I.

11-13. (Previously canceled)

14. (Previously amended) The method of claim 1 wherein the active agent consists of the amino acid sequence of SEQ ID NO:4.

15-18. (Previously canceled)

19. (Canceled) [~~The method of claim 1 wherein the side effect is selected from the group consisting of hematopoietic toxicity, decreased mobilization of hematopoietic progenitor cells from bone marrow into the peripheral blood; anemia, myelosuppression, pancytopenia, thrombocytopenia, neutropenia, lymphopenia, leukopenia, stomatitis, alopecia, headache, and muscle pain.~~]

20. (Previously amended) The method of claim 1 wherein the active agent is administered at a dosage of between 2.5 μg/kg/day and 100 μg/kg/day.

21. (Previously amended) The method of claim 1 wherein the active agent is administered at a dosage of between 10 μg/kg/day and 75 μg/kg/day.

22. (Original) The method of claim 1 wherein the active agent is administered parenterally.

23. (Original) The method of claim 22 wherein the active agent is administered subcutaneously or intravenously.

24. (Original) The method of claim 23 wherein the active agent is self-administered.

25. (Original) The method of claim 24 wherein the active agent is administered into the abdomen or thigh.

26. (Original) The method of claim 1 wherein administration of the active agent is initiated either at the time chemotherapy is initiated, or subsequently to initiation of chemotherapy.

27. (Original) The method of claim 1 wherein the active agent is administered once per day.

28. (Previously amended) A pharmaceutical composition comprising

a) an amount of the active agent of claim 1 sufficient to provide a dosage to a patient of between 2.5 μg/kg/day and 100 μg/kg/day; and

b) a pharmaceutically acceptable carrier.

29. (Previously amended) The pharmaceutical composition of claim 28 wherein the active agent has the amino acid sequence of SEQ ID NO:4.

30. (Original) The pharmaceutical composition of claim 28 further comprising an amount effective of a cytokine for increasing hematopoietic cell production.

31. (Original) The pharmaceutical composition of claim 30 wherein the cytokine is selected from the group consisting of granulocyte colony stimulating factor, granulocyte-macrophage-CSF, epidermal growth factor, interleukin 11, thrombopoietin, megakaryocyte development and growth factor, pixykines, stem cell factor, FLT-ligand, and interleukins 1, 3, 6, and 7.

32. (Original) The pharmaceutical composition of claim 31 wherein the cytokine is granulocyte colony stimulating factor.

33. (Original) An article of manufacture, comprising the pharmaceutical composition of claim 28 loaded in a drug delivery device.

34. (Original) The article of manufacture of claim 33 wherein the delivery device is a syringe.

35. (Amended) The method of claim 1 [~~19~~] wherein the side effect is hematopoietic toxicity.

36. (Amended) The method of claim 1 [~~19~~] wherein the side effect is decreased mobilization of hematopoietic progenitor cells from bone marrow into the peripheral blood.

37. (Amended) The method of claim 1 [~~19~~] wherein the side effect is anemia.

38. (Amended) The method of claim 1 [~~19~~] wherein the side effect is myelosuppression.

39. (Amended) The method of claim 1 [~~19~~] wherein the side effect is pancytopenia.

40. (Amended) The method of claim 1 [~~19~~] wherein the side effect is thrombocytopenia.

41. (Amended) The method of claim 1 [~~19~~] wherein the side effect is neutropenia.

42. (Amended) The method of claim 1 [~~19~~] wherein the side effect is lymphopenia.

43. (Amended) The method of claim 1 [~~19~~] wherein the side effect is leukopenia.

44. (Amended) The method of claim 1 [~~19~~] wherein the side effect is stomatitis.

45. (Amended) The method of claim 1 [~~19~~] wherein the side effect is alopecia.

46. (Amended) The method of claim 1 [~~19~~] wherein the side effect is headache.

47. (Amended) The method of claim 1 [~~19~~] wherein the side effect is muscle pain.